

Atty Docket No. 021751-000710US

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ATTENTION: Examiner Michael Pham

Group Art Unit 2167

OFFICIAL COMMUNICATION
FOR THE PERSONAL ATTENTION OF
EXAMINER Michael Pham

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that the following documents in re Application of Robert Jensen et al., Application No. 10/766,758, filed January 27, 2004 for MODEL REFERENCING METHOD AND APPARATUS are being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Documents Attached

1. Information Communication (5 pages)

Number of pages being transmitted, including this page: 6

Dated: October 15, 2008


Peggy Smiley

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Informal Communication

To: Examiner Michael Pham
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From: Andrew Lee (Reg. No. 60,371), 650-324-6351
Townsend and Townsend and Crew LLP

Date: October 15, 2008

Re: Application No. 10/766,758 filed January 27, 2004
Proposed Agenda for Interview

Examiner Pham:

Please find below an outline of the points I propose to discuss in an interview for the above referenced application. As I indicated over the phone, I would like to schedule the interview for Wednesday, October 22nd (a representative of the client will be attend in-person at the USPTO, and I will attend over the phone).

I. Features of the present invention

- A. Embodiments of the present invention provide techniques for facilitating the reuse of computer graphics models. In particular, embodiments of the present invention allow users (e.g., modelers) to reuse computer graphics models previously created by other users in their own models.
- B. In one set of embodiments, a first user inputs one or more commands to create a first computer graphics model, where the first computer graphics model includes a first plurality of objects. For example, the first user may input commands to create a character model comprising a head object, a torso object, and the like. Each object may, in turn, include a plurality of sub-objects.
- C. The first user then inputs a request to include a second computer graphics model in the first computer graphics model, where the second computer graphics model includes a second plurality of objects. For example, the first user may input a request to include a hand model in the character model, where the hand model comprises, for example, finger objects. In a specific embodiment, the second computer graphics model was previously created by a second user distinct from the first user, and is stored in a separate file.

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- D. In response to the request, a specification for the second computer graphics model is retrieved. The specification includes information identifying attributes of objects in the second computer graphics model that are overridable. For example, the specification for the hand model discussed above may include a "length" attribute for each finger object which is specifically designated as overridable in the specification.
- E. Once the specification of the second computer graphics model is retrieved, an instance of the second computer graphics model is created and the instance is included in the first computer graphics model. For example, an instance of the hand model is created and included in the character model.
- F. Further, for each object in the instance of the second computer graphics model, overridable attributes of the object are determined based on the specification, and the first user is allowed to override values for those overridable attributes. For example, in the case of the hand model, overridable attributes are determined for each object (*e.g.*, finger, thumb, palm, *etc.*) in the hand model. Since the "length" attributes for the finger objects of the hand model are designated as overridable in the specification, the first user is allowed to change the values for the "length" attributes.
- G. In this manner, the first user can reuse an existing computer graphics model (*e.g.*, the hand model) in his/her own model (*e.g.*, the character model). Further, the specification of the existing model can include information (overridable attribute information) that controls exactly what object attributes of the existing model can be changed by the first user.
- H. In one set of embodiments, the first user can reuse multiple existing models in his/her model. For example, the first user can reuse not only a hand model, but also a foot model, in his/her character model. Each of these models will include its own set of overridable attribute information as discussed above.
- I. In another set of embodiments, a model that reuses existing models can itself be reused in the same manner. For example, the character model described above (which reuses an existing hand model), can itself be reused by another user in, for example, a crowd model.

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II. Distinguishing features of independent claim 21 over Silva (U.S. Patent No. 6,184,901)

- A. Silva fails to disclose a “first computer graphics model” comprising “a first plurality of objects,” a “second computer graphics model” comprising “a second plurality of objects,” and “receiving... a request to include an instance of the second computer graphics model in the first computer graphics model” as recited in claim 21.
1. Silva is directed to a method for modeling a three-dimensional object using a “modifier” system. Specifically, Silva describes taking an initial definition of an object (such as tube 300 of FIG. 3) and applying one or more modifiers to the initial definition to change the appearance of the object. For example, as shown in FIG. 5 of Silva, a “bend” modifier and a “twist” modifier can be applied to tube 300 to change its shape.
 2. Thus, Silva is merely concerned with modeling a simple geometric object (e.g., tube 300) using procedural modifiers. Nowhere does Silva make reference to a model comprising a plurality of objects.
 3. Further, Silva is merely describes modifying a single object. For example, tube 300 is modified using the “bend” and “twist” modifiers to change its shape. Nowhere does Silva make reference to a first computer graphics model and a separate, second computer graphics model.
 - a) The Office Action apparently construes tube 600 and tube 610 of FIG. 6 as corresponding to two separate models. (Office Action: pg. 5). However, a review of the section of Silva describing FIG. 6 clearly indicates that tubes 600 and 610 are not separate objects (let alone separate models). Rather, tube 610 is merely shown to illustrate what tube 600 would look like if one of the modifiers for 600 were disabled. (Silva: col. 13, lines 3-12: “the tube with the bend disabled 610 shows the same modified object [600] except that the bend modifier has been disabled...”).
 4. Yet further, nowhere does Silva disclose receiving a request to include a second computer graphics model in a first computer graphics model. The Office Action indicates that this feature is shown in FIG. 6 of Silva. (Office Action: pg. 5). However, as indicated above, FIG. 6 does not even show two separate computer graphics models, let alone any indication that one should be included in the other.

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- B. Silva fails to disclose “retrieving a specification of the second computer graphics model, the specification of the second computer graphics model including information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable” as recited in claim 21.
1. As discussed above, Silva does not show the recited second computer graphics model of claim 21. Rather, Silva merely teaches a single object that is modified using one or more modifiers.
 2. Even assuming *arguendo* that tube 610 of FIG. 1 can be considered the recited second computer graphics model of claim 21, Silva still fails to disclose retrieving a specification for tube 610, let alone a specification that includes information identifying, for objects in tube 610, one or attributes of the objects that are overridable.
 3. The Office Action construes the “definition” described in Silva as corresponding to the recited “specification of the second computer graphics model” of claim 21, and the bend modifier of tube 610 as corresponding to the recited “at least one object [that] is overridable.” (Office Action: pg. 6).
 - a) However, the “definition” described in Silva refers to the initial definition of the tube (without any modifiers applied). Thus, this initial definition necessarily will not include any information about modifiers. In contrast, claim 21 specifically recites that the specification of the second computer graphics model includes information identifying attributes of objects that are overridable.
- C. Since Silva fails to disclose anything about a first computer graphics model, a second computer graphics model, and receiving a request to include the second model in the first model, Silva necessarily fails to disclose “creating the instance of the second computer graphics model and including said instance in the first computer graphics model” as recited in claim 21. (Emphasis added).
- D. Since Silva fails to disclose a specification for the second computer graphics model that includes object attribute override information, Silva necessarily fails to disclose “determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable; and enabling the first user to override values for the attributes of said each object that are determined to be overridable” as recited in claim 21. (Emphasis added).

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III. Distinguishing features of dependent claim 25 over Silva

A. Embodiments of claim 25 are directed to allowing a second user to reuse the recited first computer graphics model of claim 21 in a third computer graphics model. Thus, the third computer graphics model will include instances of the both the first and second computer graphics model. In addition, the specification of the first computer graphics model will include information identifying attributes of objects in the first computer graphics model that the second user can override.

B. Accordingly, claim 25 recites, in part:

receiving, from a second user in the plurality of users, one or more commands for creating a third computer graphics model in the model creation environment, the third computer graphics model including a third plurality of objects;
receiving, from the second user, a request to include an instance of the first computer graphics model in the third computer graphics model;
in response to the request, retrieving the specification of the first computer graphics model, the specification of the first computer graphics model including information identifying, for at least one object in the first plurality of objects, one or more attributes of said at least one object that are overridable;
creating the instance of the first computer graphics model and including said instance in the third computer graphics model; and
for each object in the instance of the first computer graphics model:
determining, based on the specification of the first computer graphics model, attributes of said each object that are overridable; and
enabling the second user to override values for the attributes of said each object that are determined to be overridable.

C. In rejecting claim 25, the Office Action merely points to the same sections of Silva used to reject claim 21; however, these section make absolutely no reference to, for example, a third computer graphics model that is separate from the first and second computer graphics models, the step of including the first computer graphics model (which includes the second computer graphics model) in the third computer graphics model, or the step of determining object attributes based on the specification of the first computer graphics model that can be overridden by the creator of the third computer graphics model.